

Claims

1. A gas ejection device comprising:

a bottle having an opening part closed by a lid, said bottle being charged with a compressed gas in advance;

a needle intruded through a pierced hole formed in said lid for stopping up said lid;

a holder holding said needle at one end thereof in a facing relation to said lid of said bottle and movable towards and away from said lid;

a biasing member for biasing said holder towards the lid of said bottle;

an actuating member for actuating said holder in a direction away from said lid to extract said needle from said pierced hole for opening said bottle; and

a housing for accommodating said bottle and the holder therein; said housing including a gas duct for forwarding said compressed gas, ejected via said pierced hole in said lid, to outside.

2. The gas ejection device according to claim 1 further comprising:

a control member for compressing against the opposite end of said holder for controlling the movement of said bottle in a direction away from said lid; said control member controlling the opening/ closure of said bottle by said actuating member for controlling the amount of ejection of said compressed gas.

3. The gas ejection device according to claim 1 wherein said pierced hole is formed by said needle pierced through said lid.

4. The gas ejection device according to claim 1 wherein an ejection nozzle for ejecting said compressed gas is formed in said gas duct.
5. The gas ejection device according to claim 1 wherein said biasing member is a torsion coil spring having one end compressing against said holder; there being formed in said housing a top plate for carrying the other end of said torsion coil spring.
6. The gas ejection device according to claim 1 wherein said actuating member includes an operating lever having one end, with a pivot at a point along the longitudinal direction as a boundary, compressing against said holder for causing movement of said holder in a direction away from said lid for opening said bottle, to open said bottle, and a thrusting member engaged with the opposite end of said operating lever, with said pivot as a boundary, said thrusting member being thrust for causing said operating lever to be rotated in a direction in which said holder is moved away from said lid; and wherein
a cap member is provided in said housing; said cap member carrying a thrust button for thrusting said thrusting member.
7. A spraying device comprising:
a gas bottle cartridge; said gas bottle cartridge including a bottle having an opening part sealed by a lid, said bottle being charged with a compressed gas in advance, a needle passed through a pierced hole formed in said lid for stopping up said lid, a holder holding said needle at one end thereof in a facing relation to said

lid of said bottle and movable towards and away from said lid, a biasing member for biasing said holder towards the lid of said bottle, an actuating member for actuating said holder in a direction away from said lid for opening said bottle, and a housing for accommodating said bottle and the holder therein, said housing including a mating coupling part formed with a gas duct for forwarding said compressed gas, ejected via said pierced hole in said lid, to outside; and

a liquid tank; said liquid tank including a tank part charged with liquid, a liquid tube for forwarding the liquid charged in said tank part to outside said tank part, a coupling part for being coupled to said mating coupling part in said housing for coupling detachably to said gas cartridge bottle, and a nozzle member passed through said coupling part so that a distal end thereof faces the vicinity of an ejection port of said liquid tube;

said liquid being ejected in a mist along with said compressed gas.

8. The spraying device according to claim 7 wherein said biasing member is a torsion coil spring having one end compressing against said holder;

said housing including a top plate for supporting the opposite end of said torsion coil spring.

9. The spraying device according to claim 7 wherein said actuating member includes an operating lever having one end, with a pivot at a point along the longitudinal direction as a boundary, compressing against said holder for causing movement of said holder in a direction away from said lid for opening said bottle,

to open said bottle, and a thrusting member engaged with the opposite end of said operating lever, with said pivot as a boundary, said thrusting member being thrust for causing said operating lever to be rotated in a direction in which said holder is moved away from said lid; and wherein

a button casing is provided in said housing; said cap member carrying a thrust button for thrusting said thrusting member.

10. The spraying device according to claim 7 wherein said pierced hole is formed by said needle pierced through said lid.

11. The spraying device according to claim 7 further comprising:

a control member for compressing against the opposite end of said holder for controlling the movement of said bottle in a direction away from said lid; said control member controlling the opening/ closure of said bottle by said actuating member for controlling the amount of ejection of said compressed gas.

12. The spraying device according to claim 7 wherein

said ejection port of said liquid tube faces the upper surface section of said tank part with offset along the direction of ejection of said nozzle member.

13. A spraying device comprising:

a tank part charged with a liquid in advance;

a liquid tube for forwarding the liquid charged into said tank part to outside said tank part;

an ejection part communicating with said liquid tube for discharging the

liquid flowing in said liquid tube;

a bottle having an opening part sealed by a lid and charged in advance with a compressed gas;

a needle piercing through a pierced hole formed in said lid for stopping said pierced hole;

a holder for holding said needle in a facing relation to said lid of said bottle for movement towards and away from said lid;

a biasing member for biasing said holder towards said lid of said bottle;

an actuating member for actuating said holder in a direction away from said lid for opening said bottle; and

an enclosure including a gas duct for said compressed gas having an ejection port of said compressed gas, ejected from said pierced hole in said bottle, said ejection port facing the vicinity of said ejection part of said liquid, said enclosure housing said bottle and the holder;

said liquid being ejected in a mist along with said compressed gas.

14. The spraying device according to claim 13 wherein said biasing member is a torsion coil spring having one end compressing against said holder;

said housing including therein a top plate supporting the opposite end of said torsion coil spring.

15. The spraying device according to claim 13 wherein said actuating member includes an operating lever having one end, with a pivot at a point along the

longitudinal direction as a boundary, compressing against said holder for causing movement of said holder in a direction away from said lid for opening said bottle, to open said bottle, and a thrusting member engaged with the opposite end of said operating lever, with said pivot as a boundary, said thrusting member being thrust for causing said operating lever to be rotated in a direction in which said holder is moved away from said lid; and wherein

a button casing is provided in said housing; said cap member carrying a thrust button for thrusting said thrusting member.

16. The spraying device according to claim 13 wherein said pierced hole is formed by said needle pierced through said lid.

17. The spraying device according to claim 13 further comprising:

a control member for compressing against the opposite end of said holder for controlling the movement of said bottle in a direction away from said lid; said control member controlling the opening/closure of said bottle by said actuating member for controlling the amount of ejection of said compressed gas.

18. The spraying device according to claim 13 wherein

said ejection port of said liquid tube faces the upper surface section of said tank part with offset along the direction of ejection of said nozzle member.